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SUPPLEMENT TO:  
AGRICULTURAL ECONOMIC REPORT NO. 154

# **SUPPLYING U.S. MARKETS WITH FRESH WINTER PRODUCE**

Capabilities of U.S. and  
Mexican Production Areas

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## ABSTRACT

Imports of fresh winter vegetables from Mexico into the United States increased from 329 million pounds in 1960 to slightly over a billion pounds in 1970. As a major supply area, Mexico is an important source to the U.S. consumer but a concern of domestic suppliers.

Tomatoes are the most important of the fresh vegetables and prospects are that Mexico will continue to supply larger amounts of vine-ripe tomatoes while Florida's position continues to decline. Florida will maintain a relatively strong position in peppers and eggplant, but will gradually yield a higher portion of the market to Mexico. Supplies of Mexican cucumbers and strawberries will continue to increase at a rather steady rate while both domestic and Mexican supplies of cantaloups will increase with relatively little competition because of production timing.

Keywords: Competition, costs, production, marketing, imports, vegetables, fruit, Mexico.

This report is based on a study made prior to August 15, 1971; therefore, some of the conclusions may need to be modified when results of the Presidential request for a 10-percent surcharge on some items imported by the United States become known.

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## SUMMARY

Continued growth in the amount of fresh vegetables imported into the United States from Mexico has increased the importance of Mexico as a supply area to U.S. consumers, but has caused mounting pressures on domestic producers.

Tomatoes continue to be the most important of the imported fresh winter vegetables. In the 1969/70 crop year, when adverse weather reduced yields in Florida, Mexico supplied over half of the fresh winter tomatoes marketed in the United States during the December-to-May season. Costs of production and marketing f.o.b. U.S./Mexican border and south Florida points rose in both areas but more so in Florida, thereby strengthening the advantage held by Mexico in 1967/68. This, combined with a climatic advantage, indicates that Mexico will continue to supply larger amounts of vine-ripe tomatoes to the United States and Florida's relative position will decline further.

Imports of Mexican winter cucumbers will continue to increase. Competition from domestic production will be limited, due to climatic conditions.

Domestic marketings of fresh peppers will probably increase at a relatively even pace and imports from Mexico will rise to higher levels. Florida has a cost advantage, but adverse weather, causing sharp drops in domestic production such as occurred in 1969/70, will encourage Mexican producers to extend their participation in the U.S. market.

Costs of producing and marketing winter eggplant are currently about equal in Florida and northwest Mexico. During 1967/68, Florida had a definite advantage. It is expected, with costs increasing more rapidly in Florida, that the advantage will shift to Mexico, which will gain a larger share of the U.S. market.

Both domestic supplies and imports of cantaloups are expected to increase as demand grows. Timing of production is different in the domestic and Mexican areas, and the competition that exists is in spring when domestic supplies become available. After domestic supplies appear in volume, Mexican imports have difficulty competing.

Mexico will probably continue to expand its export of fresh strawberries into the United States at a moderate pace as cost advantages strengthen for Mexican producers.

SUPPLYING U.S. MARKETS WITH FRESH WINTER PRODUCE: CAPABILITIES  
OF U.S. AND MEXICAN PRODUCTION AREAS

by

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INTRODUCTION

Continued increases in imports of fresh winter vegetables have furnished U.S. consumers with larger supplies during the winter, but at the same time have put increasing pressures on the domestic produce industry. As costs rise in the domestic industry, a real question arises as to how long and at what levels the domestic industry will continue operations.

To evaluate the competitive position of Mexican and U.S. sources of supplies of winter produce for the U.S. market, the Foreign Agricultural Service and the Economic Research Service conducted a study in 1968 to determine production and marketing costs experienced by these sources for the 1967/68 crop year. Results of that study were published in March and April of 1969. 2/

This supplemental report summarizes results of a 1971 study and compares them with the 1968 findings to evaluate subsequent changes in competitive positions of Mexican and domestic suppliers of selected winter produce crops.

MARKET SUPPLIES

Imports of fresh and processed fruits and vegetables from Mexico continued to rise during 1967-70, reaching a total value of \$191 million during calendar 1970. This is nearly double the 1967 value and more than four times as great as the value of imports in 1960. Fresh vegetables accounted for around 70 percent of the total and reached a value of \$137 million in 1970 (table 1).

Tomatoes, with a value of around \$95 million in 1970, continued to be the most important single crop. They accounted for about 70 percent of the total import value of fresh vegetables. Tomatoes were followed by peppers at \$12 million and cucumbers at around \$11 million (table 2).

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2/ C. John Fliginger, Earle E. Gavett, Levi A. Powell, Sr., and Robert P. Jenkins, Supplying U.S. Markets with Fresh Winter Produce: Capabilities of U.S. and Mexican Production Areas. Econ. Res. Serv., U.S. Dept. Agr., Agr. Econ. Rpt. No. 154, March 1969.

Winter tomatoes for fresh consumption were the only fresh market crop studied for which domestic production showed a strong downward trend in recent years. Levels of production of most other crops remained fairly constant. Production of most crops in Florida took a sharp dip in 1970, but this was primarily the result of a bad crop year rather than a trend. Imports of all commodities from Mexico, with the exception of cantaloups, continued an upward trend. Some of the crops, such as cucumbers, peppers, and eggplant, were imported at sharply increasing rates. Tomatoes increased at a more steady pace. Imports from other countries generally increased slightly, but volume was relatively low (tables 3-8).

Mexican producers have steadily increased their part of the market compared with U.S. producers during recent years. Their share of the December-May tomato movements increased from around 30 percent in 1963/64 to about 46 percent in 1968/69, and 60 percent in 1969/70. Florida's share of the winter tomato movement declined from 62 percent in 1963/64 to 47 percent for 1968/69, and 33 percent for the 1969/70 crop when adverse weather reduced yields (table 9).

Further penetration into the U.S. market is reflected by the increase in Mexican shipments into eastern markets. During 1967, Florida supplied 61 percent and Mexico 39 percent of the tomatoes shipped from the two areas to Chicago. By 1970 the shares were practically reversed. Florida shipments accounted for 42 percent of the total from the two supply areas, and Mexico accounted for 58 percent. Penetration of Mexican tomatoes into New York strengthened, moving up from around a tenth of shipments from the two areas in 1967 to more than a third in 1970 (table 10).

#### GENERAL TRADE

Even though Mexico has a favorable balance of trade with the United States in agricultural commodities, the United States continues to enjoy a favorable balance in all commodities (table 11). Vegetables have made major contributions to the doubling of exports of agricultural products to the United States by Mexico since 1963. The United States also nearly doubled its exports of agricultural products to Mexico since 1963, but these were still only about one-third the value of imported Mexican goods.

Both countries more than doubled their total trade with each other but the United States maintained a net advantage of \$449 million in 1970. This level has been fairly stable since 1964, except in 1969 when a rather sharp drop was recorded.

#### AREAS OF PRODUCTION

Major production and shipping areas were generally the same as described in the 1968 report. However, acreage for potential production in Mexico is increasing as hydraulic projects are completed. During the 1969/70 crop season, 30,861 hectares (76,258 acres) were devoted to vegetable production

in the State of Sinaloa. This compares with 22,518 hectares (55,641 acres) utilized during 1966/67. Around 35,000 acres were devoted to tomatoes in 1969/70 compared with around 25,000 acres in 1967/68. 3/

Acreage planted to vegetables in Florida increased from 300,500 acres in 1967/68 to 317,650 acres in 1969/70. Nearly 5,000 acres of this area was devoted to staked tomatoes and about 43,000 acres to ground tomatoes. 4/

This report, like the earlier one, does not contain any specific cost data for the Yucatan production area. Volume is being shipped primarily by one grower in much the same way as during 1967/68.

### TOMATOES

Costs of producing and marketing vine-ripe tomatoes for fresh market rose in both the Culiacan Valley of Mexico and in Florida, major winter supply areas, from 1967/68 to 1970/71.

Production costs of vine-ripe tomatoes in Florida rose from \$1,517.63 per acre to \$1,695.97. Increased material costs were the major contributors accounting for about \$66 of the rise as growers increased soil fumigation and use of plastic mulch. This was followed by labor costs which rose about 7 percent and contributed around \$40 to the increase. Equipment costs rose around 40 percent, reflecting the purchase of pneumatic stake drivers; cash overhead rose 23 percent, and noncash overhead 47 percent.

The 1970 production costs in Mexico totaled \$569.38 per acre, about one-third those of Florida. The \$18.36 increase in Mexico's production costs from 1967 was primarily the result of increases in the prices of labor, equipment, and overhead. A decline of 11 percent in materials resulted primarily from lower units costs of fertilizers and pesticides (table 12).

Better production practices by Mexican growers, such as proper timing and application of fertilizer and pesticides, and some changes in varieties have resulted in yields with a higher percentage of larger tomatoes. The proportion of larger tomatoes realized by Mexican growers is approaching that achieved by Florida growers, who had a considerable size advantage in 1967/68 (table 13). Production of greater sizes has permitted the Mexican producer to export a larger portion of his total production.

Generally, yields of the best growers in each area are nearly equal, yet average yields are considerably lower in Mexico than in Florida. The better growers were interviewed in this study and their reports of normal yields were used for calculation of per unit costs.

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3/ Analisis de la Situacion Agricola de Sinaloa. CAADES. Nov.-Dec. 1967 and July-Aug. 1970.

4/ Florida Agr. Statistics, 1970 Vegetable Summary. Fla. Dept. Agr. and U.S. Dept. Agr., 1970.

Practices for harvesting, packing, and selling have changed slightly in recent years as some Florida growers have adopted more advanced packing operations. Mexican producers have also expanded and advanced their packing operations and many packers have acquired their own truck fleets for transporting produce to the border. Some Mexican growers now have their own transfer warehouses in Nogales, Ariz.

Florida's marketing costs also rose more rapidly than Mexico's, primarily as a result of higher harvesting costs. Packing and selling costs in Florida declined, reflecting lower container costs and more automated systems. Mexico's marketing costs rose also and totaled \$1.70 per 20-pound box in 1970/71 as compared with \$1.64 in 1967/68 (table 12).

Florida's cost of producing and marketing f.o.b. totaled \$2.39 per 20-pound equivalent compared with Mexico's \$2.02 f.o.b. Nogales, Ariz. The 37-cent advantage enjoyed by Mexico compares with 18 cents in 1967/68. This greater advantage explains, partially at least, the eastward shift in market penetration of Mexican tomatoes and the stronger position in western markets as demonstrated in table 10. Florida's advantage in the New York market has decreased and its disadvantages on the Chicago and San Francisco markets have become more pronounced (table 14).

Mexican growers imposed upon themselves a voluntary quota of 180,000 metric tons for export to the United States at the outset of the 1970/71 season. By the end of May 1971, around 243,000 tons had been exported to the United States. This compares with around 264,000 during the October-May period of the 1969/70 season. Florida growers have invoked, at various times, a marketing order restricting both Florida shipments and imports. This is done on the basis of minimum size restrictions.

The conclusions set forth in the 1968 study still appear to be generally valid regarding vine-ripe tomatoes, but perhaps a bit conservative. The increase in the spread between Florida's and Mexico's costs since the earlier study has heightened the advantage of Mexican producers. This increased spread, coupled with the climatic advantage of the Mexican producer, indicates that Mexico will continue to supply larger amounts of vine-ripe tomatoes to the U.S. market and Florida's relative position will continue to decline.

About 83 percent of Florida fresh market production came from mature-green (ground) culture in 1969/70 compared with 72 percent in 1967/68. 5/ Strong efforts are being made by Florida growers to reduce costs of production and marketing by developing varieties suitable for mechanical harvesting and adapting harvesters to the requirements of fresh market tomatoes.

Shipments of mature-green tomatoes from Mexico increased after the marketing order was put into effect in 1968. Mexico exported 119,300 40-pound cartons to the United States in the 1967/68 season, 1,076,000 cartons in 1968/69, and 1,642,400 in 1969/70. 6/ Costs for this portion of Mexican production were not included in the study.

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5/ Florida Agricultural Statistics, Vegetable Summary, 1970.

6/ 1969/70 Annual Report, Florida Tomato Committee.

Mexico will probably continue to increase its exports of both types of tomatoes to the United States. Weather alone throws the long-term advantage to Mexico, while Florida enjoys an in-season advantage because of lower marketing costs. Automation may be sufficient to prolong Florida's advantage but eventually Mexican producers also can reap the benefits of automation and possibly reduce their costs.

#### CUCUMBERS

The cost advantage of producing and marketing cucumbers remained with Florida but the margin declined sharply. Per acre production costs and per unit marketing costs rose in both areas. However, a sharp increase in export yields reduced the per unit production cost in Mexico. Florida still has an advantage at f.o.b. of around \$1.50 per bushel (table 15).

Sharply increasing labor costs were primarily responsible for the 56-cent per bushel rise in Florida's f.o.b. cost.

Even though Florida has a cost advantage in production and marketing of winter cucumbers, cold weather will continue to limit volume production during the severe winter months. It is anticipated that imports from Mexico and the Caribbean will continue to grow with little competition offered by domestic winter producers.

#### PEPPERS

Florida's \$1.64 f.o.b. advantage over Mexico in 1967/68 and a 64-cent advantage in 1970/71 failed to keep Mexico from increasing its share of the U.S. market. Yields in Florida stayed relatively level while export yields in Mexico nearly doubled. The increase in export yield more than accounted for the dollar drop in Florida's advantage between the two periods, as costs of both production and marketing in each area were higher (table 16).

In addition to improved technology for producing peppers in Mexico, higher yields resulted from shipment of more of the lower qualities which would eventually be processed in the United States. Shipments of Mexican fresh peppers to the United States more than doubled between 1967 and 1970.

Florida remained in a strong competitive position since 1967/68 in spite of a decline in its margin of advantage. Adverse weather during 1969/70 limited supplies of domestic peppers. However, under normal production conditions, Florida will continue to be in a stronger position and imports of peppers should increase at a slower pace.

#### EGGPLANT

Increased costs in both production and marketing put Florida and Mexico in nearly equal positions relative to f.o.b. costs (table 17). A 36-cent advantage enjoyed by Florida in 1967/68 has been lost, primarily as a result of higher labor costs.

Mexico's exports of eggplant tripled since 1967 while Florida's production remained relatively stable. In general, yields in both areas have remained at the same levels, but acreage in Mexico has increased sharply.

With both Florida and Mexico now on a par and with costs rising more rapidly in Florida, it is expected that the advantage will shift to Mexico, which will gain an increasing share of the U.S. market.

#### CANTALOUPS

Domestic production of cantaloups during the cold months is virtually nonexistent. Most domestic production does not begin moving until late in May from Texas and in June from Arizona and California. Mexican imports are shipped mainly in winter and early spring. Therefore, there is little direct competition.

Despite a 50-cent rise per crate in costs of producing and marketing cantaloups in Texas and a 34-cent rise in Mexico, the cost advantage remains strongly with domestic production (table 18). Normally, when the United States begins producing, Mexico stops shipping cantaloups. Total shipments from both countries have been relatively stable during recent years.

It is expected that Mexican shipments will increase as demand grows. Domestic production will probably also increase gradually and continue to shut out Mexico's production when shipments begin from the Southwest.

#### STRAWBERRIES

Imports of fresh strawberries from Mexico more than doubled since 1967 and domestic production increased by about one-third (table 8). The largest production of early domestic strawberries is from California, where volume shipments begin late in February. Florida's production extends from January through April, and Mexico's shipments continue from November into May.

Mexico increased its share of the U.S. market in fresh berries during the years between the two studies. The spread between Florida's and Mexico's costs of production and marketing shifted more in Mexico's favor during the period. Mexico's 1967/68 advantage of 16 cents per flat increased to 42 cents in the 1970/71 crop year (table 19).

About 30 percent of Mexico's total production is still going into export for fresh market, 10 percent into the Mexican fresh market and the balance into processing. Virtually all U.S. early production is sold for fresh market.

Acreage for domestic early-season strawberries has decreased slightly in recent years, yet production has risen. The rise in fresh market sales is probably the result of a smaller volume going to freezers, as freezer stocks are in surplus. Mexico will probably expand its share of the early fresh market at a steady pace.

Table 1.--Fruits and vegetables: Value of U.S. imports (for consumption) from Mexico annually, 1960-70

Year	Fruits and preparations (including melons)											Vegetables and preparations				Total fruits and vegetables			
	Fresh			Processed					Total			Fresh			Processed			Total 1/2	
	Fruits	Melons	Total	Fruit juices	Citrus oils	Other	Total	Total	Fresh	Processed	Total								
----- 1,000 dollars -----																			
1960.....	2,128	6,706	8,834	1,200	906	6,374	8,480	17,314	27,458	534	27,992	45,306							
1961.....	3,004	5,498	8,502	1,346	1,723	6,763	9,832	18,334	17,666	625	18,291	36,625							
1962.....	2,957	5,848	8,805	865	2,659	7,361	10,885	19,690	25,820	1,154	26,974	46,664							
1963.....	6,388	6,056	12,444	1,617	2,933	7,596	12,146	24,590	30,040	751	30,791	55,381							
1964.....	7,308	8,163	15,471	3,961	1,337	10,152	15,450	30,921	35,711	615	36,326	67,247							
1965.....	6,147	8,958	15,105	744	3,789	12,113	16,646	31,751	40,259	1,054	41,313	73,064							
1966.....	6,568	7,436	14,004	271	4,018	20,443	24,732	38,736	66,809	1,948	68,757	107,493							
1967.....	8,503	7,595	16,098	230	5,813	14,572	20,615	36,713	59,962	2,921	62,883	99,596							
1968.....	13,730	6,367	20,097	659	5,682	16,979	23,320	43,417	67,989	1,979	69,968	113,385							
1969.....	12,878	9,048	21,926	302	2,322	19,625	22,249	44,175	100,589	3,265	103,854	148,029							
1970.....	16,119	11,309	27,428	319	3,445	18,835	22,599	50,027	136,861	3,953	140,814	190,841							

1/ Excludes dried beans and peas.

Source: Fruits and Vegetables, U.S. Imports (for consumption) from Mexico, Foreign Agricultural Service, U.S. Department of Agriculture, March 1971.

Table 2.--Fresh vegetables, cantaloups, and strawberries: U.S. imports (for consumption) from Mexico, 1960-70

Year	Quantity															Value															
	Beans, green	Cucumbers	Egg- plant	Garlic	Onions	Peas	Peppers	Squash	Tomatoes	Other	Total vegetables:	Canta- loups	Straw- berries	Frozen berries	Beans, green	Cucumbers	Egg- plant	Garlic	Onions	Peas	Peppers	Squash	Tomatoes	Other	Total vegetables:	Canta- loups	Straw- berries	Frozen berries			
1,000 pounds																															
1960.....	6,747	8,743	1,799	12,544	17,217	4,905	22,183	850	251,822	1,788	328,598	79,280	562	25,017																	
1961.....	9,386	10,392	1,899	6,976	29,708	94	12,854	1,075	156,070	1,887	230,341	79,551	579	29,817																	
1962.....	6,376	15,835	2,136	9,059	42,212	4,137	17,282	1,256	233,216	2,846	334,355	97,796	895	32,281																	
1963.....	8,506	21,378	2,671	6,853	35,321	5,298	16,244	1,823	239,965	3,683	341,742	110,427	3,412	34,550																	
1964.....	7,523	17,226	3,388	6,690	31,964	5,102	13,078	2,564	246,122	4,583	338,240	130,062	4,092	39,720																	
1965.....	8,255	39,370	4,426	6,968	39,312	4,702	17,672	5,525	265,459	6,089	397,778	146,532	5,791	51,796																	
1966.....	6,112	48,076	5,686	6,248	50,530	5,767	24,591	5,057	358,743	13,603	524,413	136,507	11,747	82,825																	
1967.....	7,162	58,412	7,186	9,160	41,407	4,848	27,799	11,129	362,354	13,329	542,786	117,218	20,499	72,693																	
1968.....	7,841	59,876	10,432	7,997	70,465	3,973	24,429	9,476	387,401	37,905	619,795	72,146	26,261	68,199																	
1969.....	10,980	109,953	17,769	9,361	51,248	6,164	40,662	18,944	446,240	29,481	740,802	118,276	44,218	87,962																	
1970.....	12,176	122,160	21,585	8,424	61,809	5,766	63,946	26,049	641,015	37,763	1,000,693	147,791	48,966	101,519																	
1,000 dollars																															
1960.....	751	735	197	1,383	1,035	375	2,311	61	20,476	134	27,458	4,023	43	3,233																	
1961.....	1,100	671	187	746	1,409	345	1,304	83	11,623	198	17,666	3,964	120	3,715																	
1962.....	713	922	198	1,404	2,753	302	1,825	99	17,364	240	25,820	4,460	142	4,121																	
1963.....	1,266	1,494	182	1,272	1,906	465	2,205	172	20,706	372	30,040	4,858	421	4,374																	
1964.....	1,128	1,324	307	865	1,705	433	1,951	317	27,355	326	35,711	6,686	513	5,679																	
1965.....	1,019	2,843	388	962	2,158	642	2,204	414	29,425	384	40,259	7,413	845	7,805																	
1966.....	951	3,638	481	912	3,097	783	3,702	546	52,015	684	66,809	5,895	2,048	15,265																	
1967.....	1,040	4,518	565	1,538	2,776	778	4,293	1,149	42,607	698	59,962	6,133	3,180	9,991																	
1968.....	1,180	4,595	982	1,743	4,597	533	4,068	1,451	46,973	1,867	67,989	4,483	11,377	11,377																	
1969.....	1,475	10,891	2,008	1,514	3,471	746	7,671	2,512	68,018	2,283	100,589	6,750	7,083	14,713																	
1970.....	1,669	10,566	2,520	1,390	5,587	1,086	12,222	3,387	94,967	3,467	136,861	7,978	8,333	14,458																	

1/ Prior to September 1963, classified as "berries, frozen, NES." However, this category is believed to have consisted almost entirely of frozen strawberries.

Source: Fruits and Vegetables, U.S. Imports (for consumption) from Mexico, Foreign Agricultural Service, U.S. Department of Agriculture, March 1971.





Table 5.--Peppers: Fresh market, U.S. production and imports, 1960-70 1/

Area and season	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
	----- 1,000 cwt. -----										
<u>Florida</u>											
Winter.....	451	653	662	564	644	682	582	746	828	618	224
Spring.....	643	586	475	704	640	558	812	700	724	780	416
<u>Texas</u>											
Spring.....	84	105	68	108	120	120	63	150	77	126	126
Total U.S. winter and early spring.	1,178	1,344	1,205	1,376	1,404	1,360	1,457	1,596	1,629	1,524	766
Mexican imports.....	222	129	173	162	131	177	246	278	244	407	639
Other imports.....	6	4	2	---	10	9	2	2	26	47	60

1/ That portion of the production not marketed because of economic abandonment has been excluded in the U.S. data.

Sources: U.S. data compiled from Vegetables for Fresh Market, Statis. Bul. Nos. 300 and 412 and Vg. 2-2(70), Statistical Reporting Service, U.S. Department of Agriculture. Mexico data from Fruits and Vegetables, U.S. Imports from Mexico, Foreign Agricultural Service, USDA, March 1971. Other data compiled from reports of the Bureau of the Census, U.S. Department of Commerce.

Table 6.--Eggplant: Fresh market, U.S. production and imports, 1960-70 1/

Area and Season	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
	<hr style="border-top: 1px dashed;"/>										
	1,000 cwt.										
<u>Florida</u>											
Winter.....	54	98	129	116	104	139	110	129	92	98	47
Spring.....	150	154	126	135	140	136	150	144	108	135	116
Total U.S. winter and spring.....	204	252	255	251	244	275	260	273	200	233	163
Mexican imports.....	18	19	21	27	34	44	57	72	104	178	216
Other imports.....	27	4	5	20	18	9	16	9	0	0	1

1/ That portion of the production not marketed because of economic abandonment has been excluded in the U.S. data.

Sources: U.S. data compiled from Vegetables for Fresh Market, Statis. Bul. Nos. 300 and 412 and Vg. 2-2(70), Statistical Reporting Service, U.S. Department of Agriculture. Mexico data from Fruits and Vegetables, U.S. Imports from Mexico, Foreign Agricultural Service, USDA, March 1971. Other data compiled from reports of the Bureau of the Census, U.S. Department of Commerce.

Table 7.--Cantaloups: Fresh market, U.S. production and imports, 1960-1970 1/

Area and Season	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
	----- 1,000 cwt. -----										
<u>Florida</u>											
Spring.....	72	75	68	77	88	120	90	70	72	84	
<u>Texas</u>											
Spring.....	399	518	759	910	840	1,062	428	1,312	938	1,260	1,246
<u>Arizona</u>											
Spring.....	2,010	1,668	2,062	2,249	1,970	1,690	1,800	1,308	1,392	1,664	1,276
<u>California</u>											
Spring.....	1,188	988	1,068	942	550	611	912	1,175	1,441	1,852	1,120
Total U.S. spring..	3,669	3,249	3,957	4,178	3,448	3,483	3,230	3,885	3,841	4,848	3,726
Mexican imports.....	793	796	978	1,104	1,301	1,465	1,365	1,172	721	1,183	1,478
Other imports.....	1	0	2	7	16	22	13	61	7	3	10

1/ That portion of the production not marketed because of economic abandonment has been excluded in the U.S. data.

Sources: U.S. data compiled from Vegetables for Fresh Market, Statis. Bul. Nos. 300 and 412 and Vg. 2-2(70), Statistical Reporting Service, U.S. Department of Agriculture. Mexico data from Fruits and Vegetables, U.S. Imports from Mexico, Foreign Agricultural Service, USDA, March 1971. Other data compiled from reports of the Bureau of the Census, U.S. Department of Commerce.

Table 8.--Strawberries: Fresh market, U.S. production and imports, 1960-70 1/

Area and season	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
	----- 1,000 cwt. -----										
<u>Florida</u>											
Winter.....	65	78	135	166	238	256	209	176	152	160	144
<u>California</u>											
Spring.....	858	1,325	1,435	1,540	1,411	1,047	1,173	1,481	2,132	2,024	2,154
<u>Louisiana</u>											
Early spring.....	138	128	146	78	154	143	145	116	109	78	84
<u>Texas</u>											
Early spring.....	24	33	31	24	24	20	20	15	13	12	10
Total U.S. winter and early spring.	1,085	1,564	7	1,808	1,827	1,466	1,547	1,788	2,406	2,274	2,392
Mexican imports.....	6	6	9	34	41	58	117	205	263	442	490
Other imports.....	1	1	1	2	11	6	14	12	27	30	24

1/ That portion of the production not marketed because of economic abandonment has been excluded in the U.S. data.

Sources: U.S. data compiled from Vegetables for Fresh Market, Statis. Bul. Nos. 300 and 412 and Vg. 2-2(70), Statistical Reporting Service, U.S. Department of Agriculture. Mexico data from Fruits and Vegetables, U.S. Imports from Mexico, Foreign Agricultural Service, USDA, March 1971. Other data compiled from reports of the Bureau of the Census, U.S. Department of Commerce.

Table 9.--Tomatoes: Total recorded seasonal movement in 40-pound cartons, by type, Florida, other U.S. points, and Mexico, 1963-70 seasons

Period 1/	Florida			Mexico			Other		Total
	Mature- green	Vine- ripe	Total	Mature- green	Vine- ripe	Total	U.S.		
	----- Number -----								
1963/64.....	11,357,700	3,782,300	15,140,000	2,349,000	5,021,400	7,370,400	1,813,300	24,323,700	
1964/65.....	10,204,300	5,127,600	15,331,900	1,619,400	6,275,200	7,894,600	2,051,400	25,277,900	
1965/66.....	9,027,800	5,711,000	14,738,800	930,600	8,729,400	9,660,000	1,432,700	25,836,500	
1966/67.....	10,793,900	4,565,500	15,359,400	514,900	9,648,900	10,163,800	1,729,000	27,252,200	
1967/68.....	9,557,200	3,903,200	13,460,400	99,800	9,282,600	9,382,400	2,150,300	24,993,100	
1968/69.....	8,697,000	3,225,300	11,922,300	956,700	10,935,100	11,891,800	1,815,800	25,629,900	
1969/70.....	6,982,700	1,447,600	8,430,300	1,621,200	13,861,600	15,482,800	1,896,400	25,809,500	

1/ December-May season.

Source: Tomatoes, Florida Department of Agriculture, Division of Marketing, EFS, August 1, 1967 and Annual Report 1969/70 of Florida Tomato Committee.

Table 10.--Relative shares of Florida and Mexico tomato shipments to New York, Chicago, and San Francisco, 1965-70

Year	New York		Chicago		San Francisco	
	Florida	Mexico	Florida	Mexico	Florida	Mexico
	----- <u>Percent</u> -----					
1965.....	91.7	8.3	72.1	27.9	7.9	92.1
1966.....	85.6	14.4	64.2	35.8	5.2	94.8
1967.....	90.9	9.1	60.9	39.1	7.6	92.4
1968.....	90.1	9.9	49.1	50.9	3.2	96.8
1969.....	83.1	16.9	43.8	56.2	.5	99.5
1970.....	63.4	36.6	41.5	58.5	1.7	98.3

Source: Fresh Fruit and Vegetable Unloads--1965-70. Consumer and Marketing Service, U.S. Department of Agriculture.

Table 11.--U.S. trade with Mexico, value of exports and imports, 1963-70

Year	U.S. exports to Mexico			U.S. imports from Mexico			Balance		
	Agri- cultural com- modities	All com- modities		Agri- cultural com- modities	All com- modities		Agri- cultural com- modities	All com- modities	
----- Million dollars -----									
1963.....	83	781		252	549		-169	232	
1964.....	75	1,026		292	607		-217	419	
1965.....	87	1,056		276	591		-189	465	
1966.....	74	1,131		328	705		-254	426	
1967.....	70	1,190		327	725		-257	465	
1968.....	81	1,334		396	871		-315	463	
1969.....	91	1,404		443	1,012		-352	392	
1970.....	155	1,674		513	1,198		-358	449	

Source: A supplement to the monthly U.S. Foreign Agricultural Trade Statistical Report (for calendar years 1964-70). Economic Research Service, U.S. Department of Agriculture.

Table 12.--Vine-ripe and mature-green tomatoes: Cost of producing and marketing by selected locations, United States and Mexico, 1967/68 and 1970/71 seasons

Item	Vine-ripe tomatoes						Mature-green tomatoes					
	South Florida			Northwest Mexico			South Florida			Northwest Mexico		
	1967/68	1970/71	1967/68	1970/71	1967/68	1970/71	1967/68	1970/71	1967/68	1970/71	1967/68	1970/71
	season	season	season	season	season	season	season	season	season	season	season	season
Dollars												
<b>Producing</b>												
Labor.....	586.17	626.36	116.04	134.09	26.79	44.79	26.79	44.79	26.79	44.79	26.79	44.79
Equipment.....	82.90	115.95	63.60	70.13	43.13	49.60	43.13	49.60	43.13	49.60	43.13	49.60
Materials.....	697.98	763.19	262.02	233.52	279.37	302.68	279.37	302.68	279.37	302.68	279.37	302.68
Cash overhead.....	130.13	160.36	67.87	82.49	64.29	64.09	64.29	64.09	64.29	64.09	64.29	64.09
Noncash overhead.....	20.45	30.11	41.49	49.15	25.21	29.82	25.21	29.82	25.21	29.82	25.21	29.82
Total.....	1,517.63	1,695.97	551.02	569.38	438.79	490.98	438.79	490.98	438.79	490.98	438.79	490.98
	2/.84	2/.94	2/.31	2/.32	3/1.25	3/1.40	3/1.25	3/1.40	3/1.25	3/1.40	3/1.25	3/1.40
<b>Marketing</b>												
Harvesting.....	.47	.65	.18	.20	.55	.69	.55	.69	.55	.69	.55	.69
Packing & selling.....	.82	.80	.44	.46	.81	1.17	.81	1.17	.81	1.17	.81	1.17
Mexican export cost to Nogales, Ariz. ....			.82	.84								
Sales commission and promotion.....			.20	.20								
Total shipping and selling.....			1.02	1.04								
Total f.o.b. marketing.....	1.29	1.45	1.64	1.70	1.36	1.86	1.36	1.86	1.36	1.86	1.36	1.86
Total producing and marketing.....	2.13	2.39	1.95	2.02	2.61	3.26	2.61	3.26	2.61	3.26	2.61	3.26

1/ Prorated to domestic and export packs.  
2/ Yield, 1800 20-lb. boxes marketed per acre. (Includes export and domestic marketings for Mexico)  
3/ Yield, 350 40-lb. lugs marketed per acre.

Table 13.--Vine-ripe tomatoes: Percentages of marketings by size, Florida and Mexico, 1966/67 and 1969/70 seasons

Size	Florida		Mexico	
	1966/67	1969/70	1966/67	1969/70
	Percent			
6x6 and larger....	81.7	78.7	54.9	69.7
6x7.....	12.1	16.6	35.3	27.7
7x7.....	6.2	4.7	9.8	2.6
Total.....	100.0	100.0	100.0	100.0

Sources: Statistical Reporting Service, USDA Survey, CAADES records and Annual Report, Florida Tomato Committee.



Table 15.--Cucumbers: Cost per bushel of producing and marketing by selected locations, United States and Mexico, 1967/68 and 1970/71 seasons.

Item	South Florida			Northwest Mexico		
	1967/68 season	1970/71 season	1967/68 season	1970/71 season	1967/68 season	1970/71 season
	Per Acre	Per Bushel	Per Acre	Per Bushel	Per Acre	Per Bushel
<u>Producing</u>						
Labor.....	54.04	67.29	33.56	39.78		
Equipment.....	40.23	46.26	64.30	70.74		
Materials.....	156.20	148.35	91.36	86.51		
Cash overhead.....	33.78	42.50	38.73	54.62		
Noncash overhead.....	35.75	44.27	22.18	26.88		
Total.....	320.00	348.67	250.13	278.53	1/1.06	1/.87
<u>Marketing</u>						
Harvesting.....					2/.36	2/.41
Packing & Selling....		.80	1.09	.89	.92	.89
Mexican export cost:		1.19	1.39			
to Nogales, Ariz.:					2.23	2.26
Sales commission					.44	.44
and promotion.....					.44	.44
Total shipping and					2.67	2.70
selling.....						
Total f.o.b.						
marketing.....	1.99		2.48		3.95	4.00
Total producing						
and marketing.....	2.81		3.37		5.01	4.87

1/ Based on following yields. Mexico - 67/68 - 235 bushels; 70/71 - 320 bushels; South Florida - 67/68 - 390 bushels; 70/71 - 390 bushels.

2/ Prorated to domestic and export packs.

Table 16.--Peppers: Cost per bushel of producing and marketing by selected locations, United States and Mexico, 1967/68 and 1970/71 seasons

Item	South Florida				Northwest Mexico			
	1967/68 season	1970/71 season	1967/68 season	1970/71 season	1967/68 season	1970/71 season	1967/68 season	1970/71 season
	Per Acre	Per Bushel	Per Acre	Per Bushel	Per Acre	Per Bushel	Per Acre	Per Bushel
Dollars								
<u>Producing</u>								
Labor.....	181.37		226.74		124.38		146.11	
Equipment.....	44.49		51.16		61.00		67.09	
Materials.....	302.09		276.88		204.93		179.01	
Cash overhead.....	74.60		82.53		69.47		77.39	
Noncash overhead.....	13.07		16.18		8.29		10.04	
Total.....	615.62	1/.95	653.49	1/1.01	468.07	1/1.30	479.64	1/.74
<u>Marketing</u>								
Harvesting.....		.55		.86		.24		.27
Packing & selling.....		1.14		1.25		.95		.95
Mexican export cost to Nogales, Ariz. ....						1.45		1.46
Sales commission and promotion.....						.34		.34
Total shipping and selling.....						1.79		1.81
Total f.o.b. marketing..		1.69		2.11		2.98		3.02
Total producing and marketing.....		2.64		3.12		4.28		3.76

1/ Based on following yields. South Florida - 67/68 - 645 bushels; 70/71 - 645 bushels; Mexico - 67/68 - 360 bushels; 70/71 - 645 bushels.

Table 17.--Eggplant: Cost per bushel of producing and marketing by selected locations, United States and Mexico, 1967/68 and 1970/71 seasons

Item	South Florida			Northwest Mexico		
	1967/68 season	1970/71 season	1967/68 season	1970/71 season	1970/71 season	1970/71 season
	Dollars					
	Per Unit	Per Acre	Per Unit	Per Acre	Per Unit	Per Unit
<u>Producing</u>						
Labor.....	122.90	152.79		80.71		93.86
Equipment.....	48.86	56.19		48.68		53.56
Materials.....	346.51	309.64		173.90		165.46
Cash overhead.....	83.87	90.79		56.53		67.84
Noncash overhead.....	51.74	64.05		16.60		20.92
Total.....	2/.77	673.46	2/.80	376.42	2/.31	401.64
<u>Marketing</u>						
Harvesting, packing and selling.....	1.18		1.58		.96	.98
Mexican export cost to Nogales, Ariz. ....					.86	.90
Sales commission and promotion.....					.17	.17
Total shipping and selling.....	1.18		1.58		1.03	1.07
Total f.o.b. marketing.....					2.00	2.05
Total producing and marketing.....	1.95		2.38		2.31	2.38

1/ Marketing Data from Brooke, Donald L., Cost and Return from Vegetable Crops in Florida, Econ. Mimeo, Rpt. EC-68-4 Dept. Agr. Econ. Fla. Agr. Expt. Sta.  
2/ Based on following yields. Florida 67/68 - 845 bushels; 70/71 - 845 bushels; Mexico 67/68 - 1200 bushels; 70/71 - 1200 bushels.

Table 18.---Cantaloupes: Cost per 88-pound crate of producing and marketing by selected locations, U. S. and Mexico, 1967/68 and 1970/71 seasons

Item	Texas (Rio Grande Valley)				Northwest Mexico			
	1967/68 season	1970/71 season	1967/68 season	1970/71 season	1967/68 season	1970/71 season	1967/68 season	1970/71 season
	Per Acre	Per Crate	Per Acre	Per Crate	Per Acre	Per Crate	Per Acre	Per Crate
Dollars								
<u>Producing</u>								
Labor.....	54.35		68.22		85.93		100.16	
Equipment.....	28.75		33.32		52.48		57.70	
Materials.....	59.31		66.40		100.31		72.49	
Cash overhead.....	39.97		48.53		53.28		57.13	
Noncash overhead.....	29.28		37.64		49.66		59.99	
Total.....	211.66	1/1.41	254.11	1/1.69	341.66	1/3.11	347.47	1/3.16
<u>Marketing</u>								
Harvesting.....		1.06		1.06		2/.45		2/.52
Packing & selling.....		2/2.36		2/2.58		1.88		2.00
Mexican export cost to Nogales, Ariz. ....						3.60		3.70
Sales commission and promotion.....						4/ .73		4/ .73
Total shipping and selling.....				3.64		4.33		4.41
Total f.o.b. marketing.....						6.66		6.95
Total producing and marketing.....		4.83		5.33		9.77		10.11

1/ Based on following yields, Texas 67/68 - 150 crates; 70/71 - 150 crates; Northwest Mexico 67/68 - 110 crates; 70/71 - 110 crates.

2/ Prorated to domestic and export pack.

3/ Packinghouse charge to growing operation.

4/ Eight percent of value in New York.

Table 19.--Strawberries: Cost per flat of producing and marketing by selected locations, United States and Mexico, 1967/68 and 1970/71 seasons

Item	South Florida		Southwest Mexico	
	1967/68 season	1970/71 season	1967/68 season	1970/71 season
<hr/>				
	<u>Dollars</u>			
<hr/>				
<u>Producing</u>				
Labor.....	235.48			
Equipment.....	84.80			
Materials.....	465.45			
Cash overhead.....	83.93			
Noncash overhead.....	152.34			
Total.....	1,022.00	1/1.34	1/	1/
			2/37	2/51
<u>Marketing</u>				
Harvesting.....	3/.04		2/.17	2/.18
Packing & selling.....	4/1.80		.56	.56
Mexican export cost				
to Nogales, Ariz. ....			.74	.74
Sales commission and				
promotion.....				
Total shipping and				
selling.....				
Total f.o.b. marketing..	1.84	1.84	1.51	1.51
			2.24	2.25
Total producing and				
marketing.....	2.77	3.18	2.61	2.76
<hr/>				
1/ Based on following yields. South Florida (Plant City area) 67/68 - 1100 flats; 70/71 - 1100 flats; Southwest Mexico 67/68 - 610 flats; 70/71 - 610 flats.				
2/ Prorated fresh market cost.				
3/ Hauling and other expenses.				
4/ Includes picking labor.				

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